

AUG 2 1921

Medical Lib

# The Public Health Journal

OFFICIAL ORGAN

Canadian Public Health Association

Vol. XII

TORONTO, JULY, 1921

No. 7

## SPECIAL ARTICLES

### CHILD WELFARE

B. FRANKLIN ROYER

### THE PREVENTION OF AMBYOPIA AS A SEQUEL TO SQUINT BY EARLY TREATMENTS

WALTER WRIGHT

### ADDRESS TO GRADUATING CLASS OF WELLESLEY HOSPITAL, TORONTO

ELIZABETH G. FLAWS

### A STUDY IN COMPLEMENT FIXATION TESTS FOR GONORRHOEA

MARGUERITE L. WESSELS

\$2.00 per annum.

154 BAY ST., TORONTO

20 cents per copy.

## **MIGHT HAVE SAVED \$18,500**

This sum belonging to a lady was lost while being transferred from one bank to another in New York City.

The money was the proceeds of a life insurance policy.

It is a great pity the amount was not transferred by cheque, but the

beneficiary preferred the cash, and it was lost.

Had the Insurance been paid to her in monthly instalments in place of a lump sum, there would have been no possibility of disaster.

We issue policies payable by monthly instalments throughout life; 240 being absolutely guaranteed.

### **The Mutual Life of Canada**

**Waterloo, Ontario**

## **LONDON and SCOTTISH ASSURANCE CORPORATION LIMITED**

**Established in Canada 1863  
FOR ALL CLASSES OF LIFE ASSURANCE**

### **Scottish Metropolitan Assurance Company Limited**

**For Insurances against FIRE, ACCIDENT and SICKNESS;  
GUARANTEE BONDS; ELEVATOR, AUTOMOBILES,  
PUBLIC and TEAMS and EMPLOYERS' LIABILITY**

**Head Offices for Canada  
London and Scottish Building, MONTREAL  
TOTAL ASSETS EXCEED \$30,000,000**

**Manager for Canada, ALEXR. BISSETT  
BRANCHES AND AGENCIES THROUGHOUT THE DOMINION**

# The Public Health Journal

---

VOL. XII.

TORONTO, JULY, 1921

No. 7

---

## Child Welfare\*

By B. FRANKLIN ROYER, M.D., D.Sc., *Executive Officer Massachusetts-Halifax Health Commission*

SIR WILLIAM OSLER, in one of his memorable addresses to medical undergraduates of Toronto University, said: "More than any other, the practice of Medicine may illustrate the second great lesson of Plato, that we are here not to get all we can out of life for ourselves, but to try to make the lives of others happier. . . . The practice of medicine is an art, not a trade; a calling, not a business; a calling in which your head will be exercised equally with your heart. Often the best part of your work will have nothing to do with potions or powders but with the exercise of your influence of the strong upon the weak." Prophetic almost were these words of the greatest physician Canada has yet produced, of the doctor equally great in England and America.

As medical men, we all have been taught similar lessons and yet it has only been within recent years that most of us have been able to apply these high principles in any way except at retail in individual cases in practice.

Probably there is no place in to-day's programme where the general practitioner and the public may meet on common ground, and where the art of medicine, the high calling of medicine, may add so much as on the common ground of child welfare. The first essential thing for any community programme along the line of child welfare is to produce a community conscience, an atmosphere demanding fair play and suitable provisions for rearing the young. Every community has need of some sort of programme for child welfare. Whether the programme be put

---

\*An address before the Nova Scotia Medical Society during an open evening meeting, July 7th, 1920.

over by volunteer organizations, by charitable and philanthropic organizations, or by properly constituted legal authorities make little difference. The programme will be successful only as the community conscience is stimulated, and as the community endorses the programme.

Child welfare work is social, sociological, common sense, and medical. General practitioners of medicine sometimes have been known to be timid about engaging in such programmes purely from selfish reasons feeling that it might encroach upon their private practice, some with old-fashioned notions that each doctor should look out for and advise the poor in his own bailiwick; still others held aloof because of the old-fashioned medical ethics that a doctor's name must not appear as having had part in any public or semi-public movement except with things strictly professional.

The great social programmes developing in connection with war work have rapidly dissipated all of these notions, and has put the doctor in close social contact with his fellowman. This change has made doctors look upon a part of their services to the community as a pure social service rather than as a source of personal gain. Strange as it may appear, however, we have not yet been able to find a single doctor, even though giving much time to social service, that has reported regret because of such devotion of time, or one who has reported a single dollar's loss in income because of it.

Nowadays we come to look upon our duty in educating the young medical man, to teach him something of his duties in social medicine. For several years at least students in certain medical schools have been given a smattering of social service, and one medical school for women gives a splendid public health social course.

In a paper by Dr. Bolt before the Child Hygiene Association last year he urged that every medical student be given training in a child welfare clinic or well baby centre; and at that meeting his paper was one of three, all dealing with the relation of the doctor to child welfare. Undoubtedly, if we are going to do our utmost for the child we must co-ordinate all child helping agencies and give them medical assistance, guidance and advice where needed. This is the problem of the present and of the immediate future, and to meet the problem squarely and efficiently is the problem of the hour.

With the conclusion of the war and the launching of the efforts of the greatest mother of the world, the Red Cross, in a peace time programme, with the tremendous impetus given to public health by the returned soldier, doctor and private, carrying home lessons as to what may be done by applying preventive medicine, health authorities everywhere came up on their toes, thus making possible one of the best co-ordinated and most aggressive health campaigns planned in the history



of the world. These campaigns naturally take their beginning about the most popular thing in the world, the baby. Catching the spirit of the word, all preventive medicine naturally planned, to prevent many of the birth catastrophes that occur by getting the mother as early as possible after conception, educating her and guiding her into the proper care of herself, and preparing her to bring into the world one likely to develop into a worth while citizen physically.

Every community that undertakes prenatal care must be prepared to supply a skilled teacher for this phase of work. Probably there is no teacher whose foundation training quite so well fits her for this type of educational work as the trained nurse.

I do not mean the trained nurse just graduating from a hospital training course, but preferably a nurse trained in a first class hospital taking maternity cases and children, then given some private nursing experience, then a well-rounded course in social service, general public health nursing, tuberculosis teaching, general sanitation, prenatal, infant, and child welfare. Such a nurse may enter the home, may teach the mother those rational physiological needs and physical care that she should give herself at such time. While it is true that she may perhaps by this very correcting of the faulty methods of living, keep some mothers from the necessity of employing a doctor, for every such case of illness averted and for each child diverted from the doctor's office at least half a dozen will enter it. The nurse with her trained eye will be quick to detect deviations from the normal and will head the mother off to the doctor's office with the baby perhaps weeks before she would otherwise go.

I have talked with many doctors, some of them in the start opposing this sort of teaching in the community, but I have been unable to find any one, after such demonstrations have been carried on for a time, who did not welcome the work and who would not have been the first to cry out against it had anything been done to discontinue it.

To properly put over a child welfare campaign in any community there must be a centre from which the work will radiate, a county clinic, a city clinic, a community clinic; or, I like it by the name *Health Centre*, a place where advice is sought and where advice is dispensed; a place where medicine is sometimes sought and medicine occasionally (very rarely) dispensed. This is the sort of place planned by your splendid Provincial Health Officer some two years ago. This is the sort of health centre that is going to be promulgated soon in nearly every county in this Province, most of them within the year under the stimulation of the Provincial Health Department, supported in part by County Councils and supported most magnanimously by the Nova Scotia Provincial Red Cross.

It is planned in all of these centres to have clinics for the expectant mother, clinics to keep the baby well, clinics to supervise children until they reach school age, clinics from which the nurse may reach out into the school and conduct routine examinations, a service that will screen out and place before the doctor all gross defects for systematic medical examination and classification. The nurse in turn will follow on into the homes of those who are found defective and literally carry many of them to the office of the doctor and even accompany some of them to the office of the specialist if the family doctor so recommends. In the course of a few years those of you who are in general practice will find that in your clientele the blocked nostrils, the tonsils touching in midline, the bulky adenoids that so often harbour infection causing middle ear disease, etc., all of these things will be coming up for early correction. You will not then be meeting in the home of the sick child those conditions that make you dread the ultimate result so often disastrous where the acute infectious disease develops into handicapped children.

There is nothing that so distresses a doctor as to lose a child and yet how many of us have seen patients die from the acute infectious disease where recovery would likely have occurred had they not met the infection with some physical handicap that made it impossible for them to surmount the infection. How many have died because the opportunity to start life with a good physical equipment was not afforded the child.

As medical men, you will be interested to recall that some of our views along the lines of prenatal care and child welfare are not entirely new and those of you with an historical bent of mind may have at some time looked up some of the writings of Soranus, a Greek physician practicing in Rome some time between 98 and 130 A.D.

You may recall that Trotiski, a Russian, in 1895 published in parallel columns the pediatric teachings of Soranus, contrasting it with that of modern nineteenth century pediatricians, and in some particulars the older physician had equally progressive ideas as the present day physician. With the exception of swaddling clothes and some revision of his advice about wet nursing his child welfare preachment was splendid. I fancy if old Soranus were alive he would not have taken up modern milk formula for feeding babies. He preached breast feeding.

In a splendid address a short time ago by Dr. Helen MacMurchy, the Chief of the Division of Child Welfare of the Federal Department of Health at Ottawa, she said in speaking of modified milk that when knowledge of this percentage scheme of feeding of infants became fashionable the doctors unfortunately "fell for it." She might well have said the babies fell by the wayside because of it.

It is going to take a long time to offset the early influence of percentage infant feeding with modified milk. When the doctors took it

up generally and with the best of intentions even if mistakenly, the manufacturers of various milk foods saw millions in it. Every doctor's office in the world has been flooded with modified milk literature ever since. The manufacturers watch the birth announcements in the daily press, and immediately the home is flooded with modified milk formulae and other literature. It is not, then, to be wondered at that the poor mother, with advice on every hand telling her how to bring up the baby on modified milk, should be too ready to give up breast feeding and put her baby on the bottle.

I have known doctors repeatedly, with but the slightest bit of disturbance on the part of the baby, tell the mother that her milk was not agreeing with the baby and that she should wean it and put it on the bottle. Often it was the worst possible advice that could have been given for mother and baby.

It is very rare indeed that mother's milk will disagree with the baby sufficiently to justify discontinuing its use. Regular interval feeding, dilution of the milk in baby's stomach by giving a few teaspoonfuls of boiled water in advance of the milk feeding is often all that is necessary. Every nurse should insist upon the mother seeing her duty and doing it in regard to the baby. Where the mother has milk she may easily be persuaded to keep on nursing. Many a poor mother has failed to develop milk because of improper application of the baby to the breast and because she immediately started the baby taking water from the nipple of the nursing bottle. The youngster, no longer hungry, failed to apply sufficient suction to stimulate gland secretion in the breast itself. Such a simple little thing as giving the baby the little water that it may need by a teaspoon rather than with a bottle with a nipple and after nursing rather than before nursing may make all the difference between baby going to the breast hungry and likely to nurse properly and vigorously and that of failure.

Why do I go into these details so largely medical in character in speaking on a child welfare programme or on the infant side of it? Only because doctors so constantly fail in dealing with the public to make those who ought to know better appreciate that the smaller things that may seem trivial mark the dividing line between success and failure. I mention these things because they bear no relation whatever to the dispensing of drugs and to impress the need of avoiding their use where detailed advice alone is required. I mention these things because they represent types of medical knowledge that need to be applied in an educational campaign, types of knowledge not likely to be had by lay groups.

---

## The Prevention of Amblyopia as a Sequel of Squint by Early Treatment\*

BY WALTER WRIGHT, M.D.

**A**MBLYOPIA ex anopsia has long been recognized as a result of squint or strabismus, so much so that we have come to look on one more or less blind eye in adult life as a natural sequence of a cross eye in childhood. This condition is far more frequent than is commonly supposed. Statistics on a large scale are very difficult to obtain but I think that one would be safe in stating that at least one in every 100 people have an amblyopic eye as a result of strabismus. Mr. R. E. Hanson, oculist to the Education Department of the London County Council, in examining over 10,000 children found a constant squint in 2.47% of the cases or about 1 in 40. As the vast majority of these would have amblyopia, it would point to 1 in 100 being an exceedingly conservative estimate.

The recent war brought home to many of us as never before the importance of this question. In recruiting days one was struck by the large number of men who had to be rejected on account of amblyopia in the right or shooting eye. Again those that were accepted have cost the country many thousands of dollars in pensions because, unlike a man with two good eyes, when their good eye was injured they became cases of practically total disability. I can assure you that this did not happen in only an isolated case here and there, but was of comparatively frequent occurrence.

In peace times we find the same condition in Workmen's Compensation cases. In the first place, the workman with an amblyopic eye is a "poor risk" in almost every form of work. Because of his binocular vision and poorly developed sense of perspective, he is more liable to accident, and, as with the soldier, if his good eye should become damaged he becomes a case of total disability.

Now the point that I wish to make to-day is that amblyopia is not a necessary sequel of strabismus. In fact the definite statement can be made that in nearly every case of squint, a child, if seen early enough, can be cured by proper treatment and by cure, we mean the eyes made straight, with not only good vision in each eye separately but with binocular single vision.

The general idea among the public is that a child "grows out of" a squint as he or she gets older, and unfortunately this idea is not confined

\*Read at the Annual Meeting of the Canadian Public Health Association, Toronto, May 17th, 1921.

to the laity but is held to a greater or less extent by a very fair proportion of the medical profession. In both hospital clinics and private practice, we find that where a child is not brought to the oculist for consultation in the early stages, in the majority of cases it is not because the mother is not sufficiently interested in the welfare of the child but because she has previously consulted her doctor and been advised to wait and see if the eye would not come all right by itself. This condition can and must be overcome by bringing the matter before the medical profession generally, more than has been done in the past.

Where the mother has not taken her child to the doctor, we generally find that she has consulted an optician or optometrist—frequently working under the title of "doctor". Here the treatment is, of course, a pair of glasses (which are almost invariably below the required strength) all other treatment being neglected, and, although in a small percentage of cases a cure is effected, in a vast majority the child grows up with an amblyopic eye. This is a much more difficult problem, as, owing to recent Ontario legislation, the optometrist is allowed to treat these cases by ordering glasses.

The rational treatment of squint is founded in part on a study of the etiology, and in part on experience gained from results in untreated cases. The time at my disposal does not permit my discussing these factors in detail but there are a few features that are so essential to a clear understanding of the whole subject that I feel justified in taking them up briefly.

*Amblyopia ex Anopsia.*—Amblyopia is a very broad term used to cover many forms of partial blindness. By Amblyopia ex Anopsia we mean defective vision from lack of education or use of the visual apparatus or part of it. When an adult for some reason develops a strabismus he is immediately conscious of a very annoying diplopia which lasts as long as the strabismus is present. A child, on the other hand, learns almost at once to suppress one image. The result of this suppression or disuse is a rapid falling off in the visual acuity of the eye. From experience we have learnt further important facts about amblyopia. We have learnt for example that the younger the child the more rapidly does the amblyopia develop and not only develop more rapidly but progresses to a much further degree, *e.g.*, a child one year old developing an unilateral convergent strabismus may within two months get such a degree of amblyopia that central fixation is lost. On the other hand a child, first developing a strabismus after six years of age, seldom gets any marked degree of amblyopia. Another important fact learnt from experience is, that by making the child use the squinting eye, the vision can be restored but *only if treatment is begun early* and again the earlier in life the amblyopia starts the shorter must be the interval before treatment is

begun, if one hopes to restore useful vision. Worth has laid down, as a rough guide, that if a child has not squinted more than half his life there is a fair hope of restoring useful vision but this is only a guide and not a rule as individual cases vary to a great extent.

Another point that I would like to mention is the relation to strabismus of the power of fusing the images seen by the two eyes. After many years of painstaking investigation of the development of binocular vision in children and of observation of strabismus, Claud Worth, of London, came to the conclusion that the essential cause of squint is a defect of the fusion faculty, *i.e.*, a defect in the power to fuse the images seen by the two eyes. According to this theory—"In the presence of the fundamental cause the eyes are in a state of unstable equilibrium, ready to squint either inwards or outwards on slight provocation." This provocation may be Hypermetropia as in Donder's theory, poor vision in one eye, motor anomalies, violent mental disturbance, etc. Now this fusion faculty can be trained, but, like the treatment of amblyopia the training must be carried out in early life. Fusion training is most useful between the ages of three and five—after five years of age the results are not very satisfactory and after six or seven years almost useless.

*Age of Incidence.*—According to Worth's figures in over 92% of cases the deviation first appears before the end of the sixth year and in over 75% before the end of the fourth year—the greatest number for any one year appearing in the third year of life. The important factor here is that the great majority of these cases start some years before the school age, *i.e.*, before they come under the eye of the medical school inspector and nurse, so that cases coming to the clinic from this source usually already have amblyopia well developed.

*Treatment.*—Here again the time at my disposal does not permit my entering into a full discussion. Our objectives in treatment should be not only to restore the visual axes to their normal positions but to prevent amblyopia and train the fusion faculty. In fact getting the eyes straight is a secondary consideration except in so far as by doing so early we help to prevent the amblyopia and encourage the fusion power. The first therapeutic measure should be the prescribing of glasses if, after the thorough use of atropine a moderately high degree of hypermetropia and astigmatism is found, as is usually the case. Glasses act in two ways—first by getting rid of the excessive nervous stimulus sent to the converging muscles in hypermetropes and secondly by equalizing the vision of the two eyes (for it is usually the worse eye that squints). The next step in the treatment is the use of measures to cure or prevent the amblyopia by making the child use the squinting eye. This is done by covering the good eye or blurring the vision of it by the



use of atropine *in the good eye only*. When by these means the visual acuity in the two eyes is more or less equal we frequently find that we have converted a constant unilateral squint into an alternating squint—a much more favourable condition. Next comes training of the fusion faculty with the Amblyoscope.

If after a few months' trial with the above measures the eyes do not come straight we should proceed to operative measures. Some surgeons prefer to eliminate the use of the Amblyoscope, proceeding at once to operative treatment claiming that the best method of getting binocular vision is to place the visual axes in their normal relations and then the fusion sense will develop normally. However, whatever method is used all ophthalmic surgeons are agreed that the one essential is *early* treatment. No child is too young to wear glasses or to have an operation if necessary.

Where amblyopia of one eye is so well developed that treatment does not improve it to any extent there is no reason for early operation as the only object then is to get a good cosmetic result which, in the absence of an active fusion sense, can best be obtained when the patient gets old enough to operate under local anaesthetic. This is unfortunately the case in only too large a percentage of the cases we see.

Now if, as I have tried to show, there is a great deal of unnecessary amblyopia what can be done to improve conditions? Much, I believe, can be gained, as in child welfare work generally, by education both among the profession and the laity. We have already seen the effect of talks to public health nurses in an increased number of cases being brought to the Children's Hospital clinic soon after the squint is first noticed. This educational propaganda must emphasize the fact that the mere wearing of a pair of glasses, whether ordered by doctor or optometrist, is not all that is necessary for a *cure* of squint in the proper sense of the word.

---



## Address to Graduating Class of Wellesley Hospital, Toronto\*

ELIZABETH G. FLAWS, *Superintendent of Hospital*

IT gives me great pleasure to welcome you to the seventh Graduating Exercises of the Wellesley Hospital Training School for Nurses and to present to you the annual report of the school of nursing. Our school is young in years, but it is attracting women of education and ability who realize the importance of preparing themselves through scientific knowledge, discipline and experience for the services of humanity. Although on all sides complaint is heard of the shortage of probationers we are fortunate in being able to bring into the school classes of well equipped students.

A hospital is primarily created for the care and treatment of the sick. Its school of nursing, while incidental to the accomplishment of this purpose, has its distinct place in the community as an educational institution, in that it prepares the nurse not only for the scientific care of the hospital patient, but also to go out in the numerous fields where the trained work of the nurse has become indispensable to public well-being.

It will be a matter of gratification to all interested in the Wellesley Hospital and the Training School to know that its record is one of constant advancement in all directions. Each year shows an increase in the service rendered, in the demands made upon the school, and also in the number of students. To care properly for this large increase means more nurses, more supervisors, and more teaching, consequently our nursing staff has increased from 12 in the year the hospital opened to 53 this year.

This Training School has had a unique experience. It had its own traditions to build. It did not have traditions handed down to be followed or lived up to—it had to map out its own course. In educational requirements, as well as in ethical principles, we have set a high standard. We have made constant changes; at all times to the betterment of the curriculum.

The educational standard consistently maintained by the Training School is higher than the Nursing Organizations of Ontario require, and is also higher than that which is called for by the regulations of the New York State Department of Education, with which the Training School

---

\*June 14th, 1921.

is registered. How we have managed, in the face of difficulties, to achieve and maintain this high standing may point the way to other Training Schools. Lacking scientific equipment, how were we to carry on systematic instruction in academic work? We turned to the Central Technical School with its excellent teaching and fine equipment, and from the inception of our Training School took advantage of this for a course in Chemistry. Three years ago the centralization of teaching in the Training Schools for Nurses in the Toronto hospitals was commenced, the classes being held in the Medical Building of the University. Here lectures were given in Bacteriology, Hygiene and Sanitation, Pediatrics, Medical and Surgical subjects—16 different lecture courses in all.

I would strongly urge that wherever a Training School is lacking in proper educational facilities it should in a similar manner avail itself of all assistance that can be obtained from the existing local schools, colleges or universities.

The pupils of this School have now a three months' affiliation with the Hospital for Sick Children, and in no institution of the kind on the continent is there a broader or more complete training given. The appreciation of our nurses for this course is shown by the fact that ten members of this graduating class received over 90% in their examination in pediatrics. Our pupils also take advantage of the course in Public Health Nursing arranged by the University of Toronto to give student nurses some idea of public health and social service work. In connection with this course the Department of Public Health of the city receives the student nurses for field work, and they thus get a combination of theory with practical work, which is to them of the greatest value. This training is not expected to make Public Health nurses of the pupils, but to give them a Public Health point of view which will be useful to them in any branch of nursing they may choose. The maintenance of high standards in the Training School is not only a matter of importance to its students—in the interest of the patient—it is ever becoming more of a public concern and responsibility, that the nurse may have the broadest preparation to meet the growing responsibilities that are being placed upon her.

The inauguration of a Department of Public Health Nursing by the University is a great step forward, and on behalf of the nurses of the Province I would like here to voice our appreciation to the University, and to the Red Cross, who have made this course possible. We wish the University would go a step further and do what has been done in Vancouver and Columbia University, in New York City and other cities—link up the training schools with the universities by a five-year course, which would give a diploma from the hospital and a degree from the university.

The need of such a course is forcibly impressed upon me by the large number of applicants with high educational qualifications who are below the age limit required for admission to the training school. The great proportion of these are lost altogether to the nursing profession when, by the proposed course, they would spend two years in academic work at the university, and then be ready to carry on their technical work in the hospital. Some friend of the Wellesley Hospital Training School might very fittingly render valuable public service by giving a scholarship to enable some one (or more) of our graduates to benefit by the Public Health course at the University of Toronto. I understand that one hospital in the city has six scholarships, and still another one three.

To the graduating class I would say, with life before you, there are, to my mind, four words most worth considering—duty, service, sacrifice, and compensation or reward.

DUTY—the thing you owe to yourself and to others. There are no degrees in this. Duty is just duty as right is right. We grow through duty done. Through duty left undone we lose self-respect and power to grow. You are intelligent, well-trained young women, you know the value of your work, the need of your service, that it is the glory of life to spend for others, not money, but self. I pass quickly, but never lightly, over what that service means to bodies racked with pain, and minds and souls tortured with the dreads inspired by disease. To pass your days and nights in soothing the one and calming the other is your mission. Are you ready for this, God helping you? The history of our profession answers that question. The lawyer may choose his case, the business man his trade, the engineer his work, but the doctor and the nurse may not. What will be the reward, the compensation? That will depend on how you have met and regarded the meaning of the other words, your duty, your service, and perhaps your sacrifice. Let us remember that Conscience is King of Life. If your duties have been done in conscience, your service been unselfish, your sacrifice unsought, but inflexibly met, then, while you may regret that you have not attained you have no conscience-stricken remorse that you have not tried. And what is money, ease, or bodily comfort worth that it should be weighed in any retrospect of your careers if King conscience can point out any spot where courage balked? And why should sacrifice of self be reckoned if the "King" can smile and lead us up to Heaven without a fear?

And now might I ask you to join with me in your heart and mind in this remarkable and beautiful prayer dating back to the 16th century, the prayer written by a Jewish Rabbi, and conceived by him to be a fitting one to be made by physicians—a prayer which, I think, might even to-day be quite as suitably entitled "A Prayer For Nurses."

"O God, Thou hast formed the body of man with infinite goodness;

Thou hast united in him innumerable forces incessantly at work like so many instruments, so as to preserve in its entirety this beautiful house containing his immortal soul, and these forces act with all the order, concord and harmony imaginable. But if weakness or violent passion should disturb this harmony, these forces would act against one another and the body return to the dust whence it came. Thou sendest then to man thy messengers, the diseases, which announce the approach of danger, and bid him prepare to overcome them. The Eternal Providence has appointed me to watch o'er the life and death of Thy creatures. May the love of my art actuate me at all times, may neither avarice nor miserliness, nor the thirst for glory or a great reputation engage my mind; for, enemies of truth and philanthropy, they could easily deceive me and make me forgetful of my lofty aim of doing good to Thy children. Endow me with strength of heart and mind so that both may be always ready to serve the rich and the poor, the good and the wicked, friend and enemy, and that I may never see in the patient anything else but a fellow-creature in pain. O God, Thou hast appointed me to watch o'er the life and death of Thy creature, here am I, ready for my vocation."

---

# A Study in Complement Fixation Tests for Gonorrhoea\*

BY MARGUERITE L. WESSELS, M.A.

**D**URING the last two years the Provincial Board of Health has been asked repeatedly: "Why do you not do Complement Fixation tests for Gonorrhoea?" Last fall the director decided to investigate these tests with a view to ascertaining what value they would be in aiding the general practitioner in the diagnosis of gonorrhoea and in the establishing of satisfactory criteria for the pronouncement of cure. The work done is as yet incomplete and the results so far, while interesting, are unconvincing.

In Report No. 19 of the Medical Research Committee there is a very thorough description of the method used by Dr. Thomson of Rochester Row, London, for *Gonococcus* Complement Fixation tests.<sup>1</sup> The method is necessarily detailed, but a general description may be not out of place at this point:—

The essentials of the test are the same as in the Wassermann test. A patient's serum, complement and antigen are put together until fixation is accomplished, when sensitized sheep cells are added. The readings also are the same, haemolysis indicating a negative reaction, no haemolysis a positive reaction. The main differences from the better known test are: (1) dilution of patient's serum; (2) a specific antigen—in this case made from gonococci; (3) fixation in the refrigerator followed by incubation in a water bath; (4) small amounts of materials, *e.g.*, 0.1 cubic centimetres sensitized cells as compared to 1.0 cubic centimetres in the Wassermann test.

I shall go into detail only in considering the antigen. As it is made up from a growth of gonococci a review of a few of the details involved in the isolation and cultivation of the organism may be of general interest.

In isolating the gonococcus it is useless to attempt work with any except fresh cases of gonorrhoea that have received no medication. The important elements are: (1) careful technique in obtaining the pus, (2) immediate transference of the materials to the tubes of media, (3) maintenance of a warm temperature until the tube is incubated.

\*Read at the annual meeting of the Canadian Public Health Association, Toronto, May 16th, 17th and 18th, 1921.

<sup>1</sup>Medical Research Committee, Report No. 19 The Laboratory Diagnosis of Gonococcal Infections.

After a strain has been isolated it should be transferred every day. After it has been growing for some time it is not necessary to make subcultures so often. We found, however, that the cultures did not grow well if they were not transferred at least every five or six days.

The media used for the cultivation is that described by Thomson, and is a variation of ordinary glucose agar. We have consistently used human serum to enrich it. Ascitic fluid serves well, but we encountered difficulties in maintaining its sterility and, therefore, used only serum. Rabbit, horse, and sheep serum were tried but failed to produce growth. In the case of horse serum we obtained a growth for several generations, after which the cultures died. We used 0.5 ccs. serum to a tube containing 5-6 ccs. agar and found that this amount was highly satisfactory. We tried to reduce the amounts, hoping that the organisms might eventually grow without serum.<sup>1</sup> Six strains which had been subcultured for a long time responded. They have been growing well for several generations in 0.1 ccs. serum and we hope shortly to eliminate the serum altogether.

Schwartz, in the *Journal of Urology*,<sup>2</sup> advocates the use of rubber stoppers when growing gonococci. He claims that by heating the air in the tube of media and inserting rubber stoppers the oxygen tension is reduced and that this condition favours growth. We adopted the plan but did not do sufficient work comparing different oxygen tensions to corroborate Schwartz. We did find, however, that evaporation was diminished, and that growth in tubes with rubber stoppers as compared with that in ordinary tubes with cotton plugs very much favoured the former.

Beyond controlling such conditions as mentioned we were unable to do anything in cultivating the gonococcus.

If the organism grew at all it was usually in pure culture. If there were any other organisms they were few enough to make isolation an easy matter. After the strains were isolated care was taken to subculture daily. In spite of all precautions there were strains that resisted cultivation, or that died after four or five generations. We, therefore, adopted the policy of making an antigen from the first heavy growth.

The antigen is prepared briefly as follows: A saline suspension of gonococci is dissolved in sodium hydroxide, neutralized with hydrochloric acid and made up to a definite volume with saline. Carbolic acid is added as a preservative. Each antigen is tested by itself, then all the antigens are pooled and tested. There should be from twelve to fifteen strains in a good antigen.

Before beginning the gonococcus complement fixation tests the

<sup>1</sup>Smith & Wilson. *Journal of Immunology*, 1920, V. 6.

<sup>2</sup>Schwartz, *Journal of Urology*, 1920, IV. 4.



complement is titrated. The guinea pig serum is diluted as follows: 1-10, 1-20, 1-30, etc. 0.1 ccs. of each of these dilutions are added to a series of tubes with 0.1 ccs. of antigen. (For general use the mixed stock antigen is diluted 1-10.) The tubes are put in the ice chest for one hour and then into water bath at 37°C for one half hour. Sensitized sheep cells (a 3% suspension of the latter) are added, 0.1 ccs. in each tube. The tubes are replaced in the water bath for fifteen minutes. The lowest dilution of complement producing haemolysis is called the minimum haemolytic dose.

In the tests proper the inactivated serum from the patient is diluted. Four tubes are used and the first three contain 0.1 ccs. of a 1-20 dilution and the fourth 0.1 ccs. of a 1-5 dilution. 0.1 ccs. of the diluted antigen are added to the first three tubes. The amount of complement used varies with different tubes. Thomson calls for two and one half minimum haemolytic doses in the first and fourth tubes, three doses in the second, three and a half in the third. We found that this gave very weak results, and that even good known positives had a tendency to show considerable haemolysis. We, therefore, reduced the complement, using two, two and a half and three minimum haemolytic doses. We did not find a corresponding fixation with negative sera. After the complement has been added the tubes are put into the refrigerator where they remain overnight. In the morning the sensitized sheep cells 0.1 ccs. to each tube—are added and the tubes incubated in the water bath for fifteen minutes.

Even with the reduced complement we continued to obtain low results. It was, therefore, decided to run with the Thomson tests a series following a different method. The main difference was to be a variation in the amount of patient's serum with the complement remaining constant. This is the method adopted in the Wassermann tests in our laboratory.

The details of the test which, to distinguish from Thomson's I shall designate as X, are briefly as follows: The first three tubes of the test contain serum diluted 1-20 in the amounts 0.2, 0.1, and 0.05 ccs. respectively. The control contains 0.1 ccs. of a 1-5 dilution and is, therefore, twice as concentrated as the first tube. Two units of complement as titrated are used in all the tubes. Otherwise the test is identical with Thomson's. The advantage of this method is that fixation is increased and that more strongly positive results are obtained. With such a delicate test this seems desirable. The disadvantage, of course, is that one is apt to get too many positives, *i.e.*, false positives. Accordingly, as a check, a number of known negative cases were examined. Specimens which had been used for routine Wassermann tests at the Toronto General Hospital were used. They included a large number of surgical



cases, a smaller number of medical and a few obstetrical cases. Of 103 cases 94 gave clear cut negatives. Five gave weakly positive results and could not be repeated owing to lack of serum. One obstetrical case gave a positive and a repeat on a specimen taken a week later was negative. Three gave positive results and examination into the histories of the cases showed a record of old infection.

Results from method X were never reported unless those from Thomson's method agreed fairly closely. When there was a disagreement repeats were always made. In making out the reports on the clinical histories and serological tests the latter are spoken of as one test. It should be understood that they are duplicate results.

In making out the report of cases examined in connection with serological findings all cases of gonorrhoea have been divided into four classes as follows:

1. Acute cases with positive smears.
2. Chronic cases with positive smears.
3. Chronic cases with negative smears.
4. Cures.

Besides this classification there are two other groups into which some of our tests must go. (1) The control group of negatives mentioned above, and (2) specimens sent in from hospitals and labelled "routine."

Out of three hundred and fifty tests one hundred and three were the control negatives. This leaves a balance of two hundred and forty-seven which go in one of the four groups of gonorrhoea mentioned above or in the routine group. Of these only one hundred and thirty gave sufficient clinical history to classify them in any of the gonorrhoea groups. A table has been made out showing the clinical findings of these cases as compared with the serological results.

As might be expected, groups three and four are much larger than the other two; group four is largest of all. Private physicians are naturally not so anxious to have serological tests on the cases with positive smears as on those that are clearing or have cleared. In hospital clinics the number of fresh cases as compared with those of long standing is very small.

In class 1, *i.e.*, acute cases with positive smears, we have only eight specimens. Six of these gave a positive serological test. The other two were cases of only four days' duration when a positive serological finding would scarcely be expected.

In class 2, *i.e.*, chronic cases with positive smears of sixteen cases fifteen were positive serologically.

In class 3, *i.e.*, chronic cases with negative smears, but a few other signs remaining, twenty-eight were positive and six negative.

Class 4 includes all clinical cures. There were seventy-two of these

and sixty gave negative results. Of the twelve that were positive three were repeated after two weeks and were negative. The results lead one to hope that if repeats had been possible on more cases the agreement would have been higher. Although one cannot draw conclusions from such a small number there is at least the hope that this group will yield satisfying results.

There have not been many cases on which we have done a series of tests, but I should like to give the results on the few that have been done. One case that gave a positive result when clinically in class 2 gave a negative result on a specimen taken when the patient was pronounced cured. Five cases in group 3, with positive serological findings, repeated when cured gave negative results. Four other cases that had been in group III gave a weakly positive result when considered in group IV by the clinician. One case, that of G.C. arthritis, gave strongly positive tests when the patient's condition was worst. Recently his arthritis has almost entirely disappeared. We have not yet obtained a negative serological test from him, but the recent tests have been much less fixed, and the last test was only weakly positive.

In view of the fact that such a small number of cases have been done and that it has been impossible to do a series of tests on more than a few cases, the results obtained as a piece of research are rather encouraging.

Source	Group I*		Group II		Group III		Group IV†	
	+	-	+	-	+	-	+	-
A	2	1	11	1	5	1	21	3
B	2	1	0	0	10	3	19	4
C	1	0	4	0	13	2	11	2
D	1	0	0	0	0	0	9	3
	6	2	15	1	28	6	60	12

#### SUMMARY

Source	Group I		Group II		Group III		Group IV		Routine	
	+	-	+	-	+	-	+	-	+	-
A	2	1	11	1	5	1	21	3	0	9
B	2	1	0	0	10	3	19	4	0	2
C	1	0	4	0	13	2	11	2	1	8
D	1	0	0	0	0	0	9	3	0	1
	6	2	15	1	28	6	60	12	1	20

\*Both negative cases were obtained from patients with an infection of only four days' duration.

†Most of the positives gave only a weak reaction. Two results on later specimens were negative. Two others were in a series and gave weaker results than previously.

To say, however, that the complement fixation test as described above is a wise one to adopt as a routine laboratory test is a statement that is open to much question.

A satisfactory laboratory test is one which will give good results within the range of experimental error. In using amounts as small as those called for in the complement fixation tests, results are practically certain to be affected by laboratory technique. Let us take the antigen for example. Each day a test was made increasing and decreasing the antigen and putting with known positives and negatives. It was usually found that only one dilution, namely, the one used in the test proper, could be relied on to give fixation with positive sera and haemolysis with negative sera. Therefore, although the tests were made with utmost care, and while the duplication of tests avoided many errors, one does not feel over confident that such a fine test will be reliable except when used with great caution.

The complement was probably the other most important source of error. Up to May 1st we had made tests on twenty-five days, that is, we had put through twenty-five different series. Of the twenty-five the whole work of three days had to be repeated. One other series was repeated twice, and another three times before satisfactory results were obtained. In addition to the repetition of the whole series, on thirteen other days individual tests varying in number from one to five were repeated. Considering the fact that the tests were always done in duplicate the source of error either from technique or from the haemolytic system seems to be high. The complement seems to be of great importance in this regard. It is much more difficult to read the complement titration for gonococcus complement fixation tests than for Wassermann tests. This is particularly true when the complement seems low and a correspondingly large amount is used. If the first clear tube in such a case is taken as the minimum haemolytic dose, results will tend to make all the sera negative, and if one uses less than the titre there is a very narrow margin before one is erring on the side of too many positives. Because of some such difficulty it has been necessary to repeat so much of the work.

It would seem, therefore, that while the results have been sufficiently encouraging to warrant the hope that a good test will be evolved, at the present time the method as described is not sufficiently valuable to advocate its general adoption in public health laboratories.

I should like to express my indebtedness to the physicians of the city who have supplied me with specimens from patients at the hospitals clinics and from those in their own private practice; and to Miss Dorothy McCullough who has worked with me and has been of invaluable assistance in all the serological experiments.

## Child Welfare in British Columbia

Record of Proceedings of the Conference of Committees on Public Health and Child Welfare and the Provincial Board of Health of British Columbia.

A DOMINION Child Welfare Council was formed by the Dominion Department of Health on October 19th, 1920, and the Provincial Departments, following this idea and in order to co-ordinate the work, are each forming corresponding Provincial Councils.

Recognizing that the success of the Provincial Child Welfare movement in rural British Columbia depends almost entirely upon the influence of the Women's Institutes, and in appreciation of the assistance already rendered by individual Institutes, the Board of Health issued invitations on February 21st to the members of the Public Health and Child Welfare Committees, appointed at the recent conference to consult with the Provincial Board as to what particular phase of this work could be recommended to the Institutes, and also the most expedient means of carrying out a definitive Provincial policy.

The conference met on March 11th.

The plan of work and general policy of the National Council was then outlined.

In carrying out this policy the idea is not to form any new organization but to correlate and encourage the present efforts of existing organizations interested in any phase of Public Health and Child Welfare. For this purpose voluntary organizations are acting as educational agencies to show the need that exists and to suggest the most practical remedy. Foremost among these organizations in this respect are the Women's Institutes, whose motto is, "For Home and Country" and object, "to improve conditions of rural life" by the study of "Public Health and Child Welfare." It is with this "object" in view that the members of the Public Health and Child Welfare committees had been called in conference that day.

The plan of work was then, after very thorough discussion, agreed upon.

A "Registry for Expectant Mothers" would mean obtaining the names of expectant mothers and having them fill out an application form and forward it to the Provincial Board of Health in order to receive advice periodically. Various means of finding the names of these and of the mothers of pre-school children were considered. It was unanimously agreed that the teacher, doctor, but more especially the school nurse, would be the sources from which to receive such information.

The graded diet folders issued by the Child Hygiene Section of the Canadian Public Health Association next came under consideration; it was stated by Dr. Young that these could be had upon request, it might be that the Institutes could act as distributing centres for them. From the diet question the discussion turned to the subject of home nursing, and the meeting considered that home nursing demonstrations would be very acceptable to most of the Institutes. After a great deal of discussion the general opinion seemed to be that a Public Health Nurse would be the best qualified to give such demonstrations. This in turn led up to the all important matter of financial support. The plan as outlined in the folder, "How to Organize a Public Health Committee" was reviewed together with the assistance rendered by the Department of Education to school districts employing school nurses and dental surgeons. The problem of suitable living arrangements for these nurses was one which could not always be met satisfactorily in many communities. In one district notably Waldo, the plan which so far has met with success is to provide a joint home for the nurse and teachers.

As regards the health of the school children, the "irreducible minimum" as outlined in the suggested working plan, was discussed clause by clause and the meaning of "Local Education Authority" was explained as the "local school board." The question of providing dental treatment was discussed and although a plan applicable to all districts was not found, it was pointed out that the duties of the school nurse are to follow up the defective children and recommend methods by which operative and dental treatment can be supplied.

In the discussion on the physical condition of the Provincial public schools all agreed that a great need for "daily organized physical exercise of an appropriate character" existed in the schools. Instances were cited where games, such as tennis, football, etc., had been provided by the Institutes. Altogether the general plan was approved.

The next subject receiving attention was the method of working out the details of this plan.

The jacketed stove was described in detail. Such a stove is surrounded by a metal jacket nine inches from the floor with a shaft leading directly from the outside, through which a constant current of fresh air enters, is warmed and rises into the room.

The necessity of having teachers trained to teach health in the schools came under discussion, and the idea was heartily approved.

In order to bring home the true conditions of health, both in children and adults, the plan which has met with such success in other countries, of having health exhibits at fairs, conventions and public gatherings, was considered and approved.

Medical Inspection of School Children was carefully explained by

Dr. Young. British Columbia is the only Province in the Dominion which has compulsory medical inspection of school children. While results are not all they might be, still there is a steady improvement, more and more parents are following advice given by medical examiner. In some instances the medical inspection has been perfunctory; here is where the Institutes can be of immense assistance. If the Institutes would make it a point to have all mothers attend the inspection, the inspection would not only be carried out carefully, but the mother would act upon advice given.

The next topic for careful consideration was the Provincial Child Welfare Council. Dr. Young explained that the idea which it was hoped the Institutes would find practical to carry out is for each Institute to either take the lead or to assist in forming a Child Welfare Committee or Council to carry out the work as outlined by the Federal Department. The Committee of each Institute would form a local council, each of these would appoint a representative, and these representatives could hold conventions or not as deemed advisable. The representatives in turn would, by correspondence or in conference assembled, elect a representative to the Provincial Council. Each of the four districts would thus be represented on the Provincial Child Welfare Council, and the Institutes by this means would become an integral part of the Provincial Child Welfare movement.

The following resolutions were presented by the Resolutions Committee, discussed and adopted:

WHEREAS the suggested working plan for Child Welfare work put before this Committee meets with approval, it is resolved that the plan submitted be accepted as a basis from which to work, and that a copy of same be forwarded to each Institute.

WHEREAS it has become necessary to educate our people uniformly along lines of Public Health and Child Welfare in order to raise the standard of Public Health,

THEREFORE BE IT RESOLVED that the government be asked to provide a Child Welfare and Public Health Exhibit to be shown at fall fairs and conventions throughout the Province.

WHEREAS there are no facilities for treatment of drug addicts in the Province,

THEREFORE BE IT RESOLVED that this conference go on record as urging the establishing of suitable wards for psychopathic treatment apart from the Provincial hospital at New Westminster. And that these wards may receive other mental cases for observation and treatment.

THAT Women's Institutes be made agents for district publicity in Child Welfare work.

WHEREAS the teaching of health in the schools is not carried out in accordance with advanced ideas of health,

THEREFORE BE IT RESOLVED that the Department of Education be asked to appoint a teacher of health for the Normal schools who will be a graduate nurse with university qualifications in Public Health work.

---



# Mothers! Breast Feeding of Infants Is Best

By J. J. MIDDLETON, M.B., D.P.H.

**B**REAST feeding is nature's way of bringing up babies. It is unquestionably the best method, no system of artificial feeding however scientific, being able to compare with it. The great preponderance of deaths among artificially-fed children proves conclusively that a baby's chance of surviving during the first critical year of life is immeasurably increased if it is fed on mother's milk.

There is no feature of Child Welfare work that needs more emphasis than this question of infant feeding. Every mother in the Province should become an active apostle both by example and advice of this most important stepping-stone to a healthier childhood.

## NURSE THE BABY

*Instances in which mothers cannot or should not nurse their babies are few and far between.*

Scientific care of the mother, and practical help supplied by competent advisers will in almost every case remove any objection to feeding the child at the breast. In all efforts towards Child Welfare, no great hopes can be held out for improved standards of health for the coming generation if the question of infant feeding is not given a foremost place in the minds and hearts of all.

## ARTIFICIAL FEEDING

For the very few mothers who through necessity must abandon nature's way of infant feeding, and resort to artificial foods, some important points must be clearly pointed out:—

Modified cow's milk is the most satisfactory substitute for mother's milk.

A bottle-fed baby should be under the supervision of a physician.

At nine months of age a baby should be getting approximately three parts milk and one part water. The milk may be increased gradually until at 12 months the baby will be getting whole milk.

## MILK MUST BE PURE

All milk delivered to your door should be in bottles and should come from healthy, disease-free cows.

If the milkman delivers your milk before you are up in the morning

place a covered box outside your door for him to put the milk bottles in. This will keep the milk from the glare of the sun, and from flies, cats and dogs. In winter a little sawdust in the bottom and about the sides of the box will prevent the milk from freezing.

#### KEEP THE MILK CLEAN

If it is impossible for you to get bottled milk get the best you can from a milkman whom you know to be clean.

Keep the milk in the bottle until needed for use. When the cap is removed wash off the mouth of the bottle before pouring out milk, after which the cap should not be replaced, but an inverted cap or glass placed over the bottle.

#### MILK SHOULD BE PASTEURIZED

Raw milk may carry germs of tuberculosis, diphtheria, scarlet fever, or other communicable diseases. Danger can be prevented by proper pasteurization of the milk. Pasteurization means heating the milk to about 150 degrees F. for 30 minutes and then rapidly cooling it. Milk for the baby should always be pasteurized in the feeding bottles.

#### HOW TO PASTEURIZE

It may be done as follows: The feedings for the next twenty-four hours should be mixed in a large pitcher, according to physician's directions, and poured into the clean, feeding bottles, which should then be stopped with clean, non-absorbent cotton. It is then ready for pasteurization. Take a wire basket or bottle rack that will hold all the nursing bottles, and place this in a vessel of cold water filled to a point a little above the level of the milk. Heat the water and allow it to boil for five minutes. Then run cold water into the vessel until the milk is cooled to the temperature of the running water. The milk should then be kept on ice until used.

#### KEEP MILK IN ICE BOX

If you have an ice-box put the milk in it as soon as possible after delivery. A very good ice-box can be made as follows: Get a box 18 inches square from the grocer and put 3 inches of sawdust in it, place upon this two pails, one larger than the other, the smaller one inside the larger. Fill the box around the outer pail with sawdust. Into the inner pail put your bottles of milk, surrounding them with cracked ice. Then cover the inner pail with a thin cover and the box with its own cover, on the surface of which you have nailed about ten newspapers.

#### AVOID PREPARED FOOD AND CONDENSED MILK

Where fresh milk cannot be obtained milk powder—dry milk—is the best form of canned milk to use.

*Baby foods and condensed milk are not satisfactory substitutes for good cow's milk. They may make the baby fat, but will not promote proper growth.*

Babies fed on such foods usually have a low resistance to disease.

Hold the baby in your arms and hold the bottle while feeding, and do not allow the baby to drink from the bottle longer than fifteen or twenty minutes.

If the baby does not want the whole feeding do not urge him to take it, and do not save it for the next feeding—throw it out, rinse the bottle and fill it with cold water.

#### STOP FEEDS IF DIARRHOEA OCCURS

If the baby has diarrhoea stop all feedings, give plenty of boiled, lukewarm water, and send for a physician.

#### MOTHERS SHOULD CO-OPERATE

Last but not least, develop the community spirit, the spirit of co-operation in infant and child welfare. Knowing how to feed and care for your own children lend a helping hand to those less fortunate people in your neighbourhood who need your help and advice. Also assist by every means in your power all organized efforts that may be put forth in your home town or district to reduce infant mortality and to correct defects of childhood.

#### A HEALTHIER RACE OF PEOPLE

By so doing you will have the gratification of helping in the great work of improving health standards and bringing about a healthier and happier plane of citizenship for the generations to come.

The above article is being issued in pamphlet form by the Provincial Board of Health of Ontario. Copies for general distribution can be obtained by applying to the Chief Medical Officer of Health, Parliament Buildings, Toronto.

---

## Social Background

### Toronto Neighbourhood Workers' Association

#### EMERGENCY UNEMPLOYMENT WORK

WHEN unemployment became acute in the city it was felt that it would be more satisfactory if the secretaries were in district offices where they could work in closer co-operation with the nurses, dealing with the problems that arose in connection with other needs than those of food and coal in the families to which the nurses were giving relief.

#### NUMBER AND TYPE OF FAMILIES

1526 families, presenting 1903 specific problems, were referred to the secretaries up till May 1st. Rent was the cause of trouble in more than 50% of the cases. About 10% of the total applications were unnecessary being from people who were more or less taking advantage of the situation, while another 15% were able to find their own solution through some unexpected windfall, or by carrying out the advice of the secretary before the secretary had to take action herself. Loans were given as a last resort, when there were no other sources of immediate help. One-third of the families had loans. One might note that the working-man landlord was more sympathetic than the well-to-do owner. The families as a rule, represented a good independent working group. Less than half (652) were known to the Exchange, while 42 others were known to have a record not registered and from the majority of the registrations one would not infer previous dependency. Only about 150 families present problems that will necessitate continued work by the Neighbourhood Workers Association after the unemployment emergency has ceased, and a few others are the responsibility of agencies to which they were immediately referred.

#### EMPLOYMENT OF WORKERS

At least 25% of the men were laid off from construction work, and other seasonal trades. When regular seasonal workers were questioned as to why they could not maintain themselves as in other winters they stated the rainy fall caused short time and lessened earnings; that they usually obtained odd jobs or worked in factories during the winter; that their friends were out of work and could not lend them money to tide them over.

A little less than half the men could be classed as even semi-skilled,

and many men with trades had not been employed at them for months and had been working as labourers, with lower wages and irregular work.

Only one-third of the men were known to be working at work which might be expected to be regular by the end of April. The average labourer had been six weeks out of work when he applied to the Neighbourhood Workers, while the average for the semi-skilled was two or three weeks longer. A few of the men tried to obtain help under false pretences, when they were working. They over-reached themselves when they applied for help with rent, and the secretary asked the employer for the man's record, and if he could soon be re-employed.

There were also a few instances of employers taking advantage of the situation. One firm had a janitor for a year and paid him \$19 a week, on which he could *just* keep his family. In February they let him go and engaged an old man at \$13 a week. On inquiry they said the first man was a good worker and had wanted to stay, but they knew he could not keep his family on the lower wage and as they could get cheaper help they did not feel justified in employing him, even though he wished to stay at the reduced wage. While the majority of the families needed help for debts—whether rent, insurance, light, or other payments, and clothing, there were many varied services rendered.

Sometimes the deterioration due to unemployment led to marital troubles. In some families the wife went to work and the husband looked for company elsewhere. The secretary had to adjust difficulties—sometimes moving the family, sometimes getting work, though rarely was the last ever possible, or somehow temporarily at least patching up a truce. When time permitted the opportunity was taken to fill some of the many social needs that are found in any group of families.

#### BOARD OF TRADE

As it was obvious by the end of December that there would be great need for help with rents, the Board of Trade instituted a loan fund, which was of the greatest assistance. The Neighbourhood Workers Association acted in co-operation with the Board of Trade, investigating and recommending families for loans. After the emergency work was over, Mr. Tolchard, Secretary of the Board of Trade, expressed the appreciation of the Board for the work done in part as follows:

"I am also instructed to convey to you, and through you to the workers associated with you in the Neighbourhood Workers Association, the sincere thanks and appreciation of the Board of Trade Emergency Loan Fund Committee for the very splendid service which has been rendered during the past winter in investigating and reporting upon applications for rental loans. The Committee has at all times been well

pleased with the complete reports which have been presented and the thoroughness of the work of your Association."

While there is no question but that the fact that there was some means of dealing with rents, and the other problems, prevented a great deal of suffering, it was in many ways disheartening work. The majority of the men wanted work, not help. At first they were optimistic, but as week after week their searching and tramping brought in only enough to pay part of possibly a gas bill, they became despondent and sometimes slouchy in appearance. More genuine thanks was given for a job secured in most cases than for material help.

#### REPORT OF WORK DONE IN CONNECTION WITH EMERGENCY UNEMPLOYMENT

January 1st to May 1st, 1921

##### *Main causes of financial stringency in family:*

Cases where problem was caused by unemployment. Family were normally financially independent .....	1,269
Cases where problem was due to a social disability in addition to unemployment (not including temporary illness) .....	144
Cases where there was underemployment and not sufficient income to keep family independent .....	43
Cases where present financial situation was largely, or wholly, due to expense of recent illness, followed by unemployment .....	70
<b>Total number of families .....</b>	<b>1,526</b>

##### *Specific Problems Presented:*

Clothing .....	344
Gas, Hydro, Water Bills .....	214
Rent .....	1,104
Other debts, medical or household supplies, transportation, special investigation to help decide eligibility for relief and miscellaneous .....	241
	<b>1,903</b>

##### *Disposition of Problems Presented:*

Where several problems presented by one family were solved in the same manner, the solution is only included once. Similarly one problem might require a combination of disposition.

1. Unnecessary applications. Family was quite capable of meeting the problem and it was left entirely with them .....	183
2. Advice and direction given which assisted family to meet the problem themselves .....	103

3. Referred to another agency.....	146
4. Legal aid obtained.....	13
5. Friendly visitor obtained; church connection or family relationship strengthened.....	43
6. Investigation for Public Health Nurse involving more than ordinary consultation.....	38
7. Adjustment made with creditor.....	107
8. Creditor staved off until:	
(1) Family obtained work; or aid from friends....	65
(2) Problem had ultimately to be handled, but on a smaller scale.....	9
(3) Still pending.....	15
	—
	89
9. Work obtained:	
(1) Temporary work.....	40
(2) Permanent work.....	21
(3) Work was refused.....	29
(4) Man secured other work at the same time and so did not take job.....	6
	—
	96
10. Material relief secured other than loans:	
(1) —Through individuals.....	100
Through churches.....	83
Through organizations.....	84
Through relatives.....	1
	—
	268
(2) Supplementary—Through organizations.....	10
Food Through churches.....	1
	—
	11
(3) Cash or other—Through individuals.....	12
Relief Through relatives.....	10
Through churches.....	28
Through organizations.....	63
	—
	113
Total material relief secured.....	392
11. Board of Trade loans:	
(1) Families to which loans were given (56 of these cases had repeated loans, not always from the same source).....	444
(2) Man found solution before cheque came.....	26
(3) Refused.....	9
	—
	479



12. N.W.A. gave loan (20 of these cases had repeated loans, not always from the same source).....	53
13. Miscellaneous services.....	44
14. Man was told to make a further effort with the landlord, and did not return.....	55
15. Man moved, or working, or found a solution before any action was taken.....	78
16. Man refused information required or co-operation.....	51

---

Total disposition of problems..... 1,970

#### COUNTY WORK

Just before Christmas the Neighbourhood Workers Association received numerous appeals from unemployed men living in the county. Many of them were city men who, not able to pay city rents, moved out but still worked in the city and, like many others, were laid off. By the time the City Relief was organized they were at the end of their resources. They tramped in, as before, to the Employment Bureau and discovered that relief was only for city men. They were referred to the Neighbourhood Workers Association. The Secretary, if it was necessary, gave an emergency order; later she tried to reach some minister or prominent citizen near the man's home and ask him to visit and help the family if it were wise. Some of the township officials were willing to help, but until elections were over, they did not feel able to spend money on much relief. Christmas week the men came into the office, many of them white and overstrung, heartsick at the Christmas they saw ahead for the children. As far as possible endeavours were made to see that no family missed Christmas dinner, but the fact that all work had practically to be done by long distance phones, and that even these were scarce in the localities added to the difficulty. Altogether 201 of these men came to the office before the middle of January, when the townships organized their relief on a broader basis and undertook full responsibility and made unnecessary the weary round that many of the men made in an effort to find help.

---



## The Provincial Board of Health of Ontario

### COMMUNICABLE DISEASES REPORTED BY LOCAL BOARDS OF HEALTH FOR THE MONTH OF MAY, 1921

#### COMPARATIVE TABLE

Diseases	May, 1921		May, 1920	
	Cases	Deaths	Cases	Deaths
Small-pox. ....	533	1	290	0
Scarlet Fever ....	363	11	383	10
Diphtheria.....	434	32	378	46
Measles.....	516	8	2,245	45
Whooping Cough.....	228	15	99	12
Typhoid.....	38	8	41	12
Tuberculosis .....	224	130	237	127
Infantile Paralysis.....	3	2	1	1
Cerebro-Spinal Meningitis.....	10	7	8	7
Influenza and Pneumonia.....	31	19	61	53
Primary Pneumonia .....		181	...	292
	2,403	414	3,743	606

### VENEREAL DISEASES REPORTED BY MEDICAL OFFICERS OF HEALTH

#### COMPARATIVE STATEMENT

	May, 1921	May, 1920
	Cases	Cases
Syphilis.....	261	81
Gonorrhoea.....	252	107
Chancroid.....	6	3
	519	191

SMALL-POX CASES REPORTED BY LOCAL BOARDS OF  
HEALTH FOR THE MONTH OF MAY, 1921

County	Municipality	Cases	Dths.	County	Municipality	Cases	Dths.
Algoma	Sault Ste. Marie (5 months Jany.-May)	164	..	Muskoka	Morrison	5	..
	Massey Station	1	..	Norfolk	Simcoe	3	..
Brant	Brantford	11	..		S. Walsingham	3	..
	Oakland	1	..		Charlotteville	3	..
	S. Dumfries	3	..	Northd. & Durham			..
Carleton	Ottawa	104	1		Bowmanville	14	..
Dufferin	E. Garafraxa	3	..		Cartwright	1	..
Essex	Essex Border	3	..	Ontario	Rama	8	..
	Amherstburg	4	..		Beaverton	1	..
Frontenac	Kingston	1	..	Oxford	S. Norwich	22	..
	Kingston Tp.	3	..	Parry Sound	Parry Sound	4	..
Grey	Bentlnck	7	..		Byng Inlet	2	..
	Sydenham	1	..	Peel	Bolton	3	..
	Durham	1	..	Perth	Logan	2	..
	Hanover	1	..	Peterboro	Peterboro	4	..
	Sarawak	2	..	Simcoe	Alliston	1	..
	Sullivan	1	..		Orillia	3	..
Halton	Milton	2	..		Adjala	1	..
	Naussagawaya	1	..		Orillia Tp.	5	..
Hastings	Belleville	6	..	Sudbury	Foleyet	1	..
	Deseronto	1	..	Thunder Bay	Port Arthur	1	..
Lambton	Sarnia	1	..	Temiskaming	Haileybury	5	..
	Brooke	8	..		Bucke	4	..
Lanark	Carleton Place	2	..	Waterloo	Kitchener	6	..
	Drummond	1	..		Galt	1	..
	Dalhousie & N.		..	Wellington	Guelph	1	..
	Sherbrooke	3	..		Harriston	2	..
Lennox & Addington			..		Maryborough	6	..
	Denbigh A & A	1	..		Mount Forest	2	..
	Richmond	10	..	Wentworth	Hamilton	14	..
	Ernestown	2	..		Dundas	1	..
Lincoln	St. Catharines	1	..		Waterdown	1	..
Middlesex	London	3	..	York	Toronto	7	..
	W. Nissouria	1	..		Newmarket	9	..
	Mosa	1	..		King Tp.	1	..
	Westminster	2	..				..
						533	1

## News Items

Dr. Alan Brown, Director of Child Hygiene in the Department of Public Health, Toronto, was the guest of the Pacific Coast Paediatric Society at its recent meeting in June held in Portland, Oregon. Dr. Brown was elected an Honorary member of the Society. Returning by way of Vancouver he addressed the Vancouver Medical Association in that city.

---

Dr. C. J. O. Hastings, Medical Officer of Health, Toronto, has quite recovered from his recent severe illness and has resumed his duties.

---

Miss E. Kathleen Russell, Director, Department of Public Health Nursing in the University of Toronto, is spending the summer in Nova Scotia.

---

Dr. George D. Porter has resigned as Secretary of the Canadian Association for the Prevention of Tuberculosis and has been appointed Special Lecturer in Health Education in the Department of Hygiene and Preventive Medicine, University of Toronto.

---

Dr. Robert E. Wodehouse has resigned as District Officer of Health, No. 2 District, Provincial Board of Health, Ontario, and has been appointed Secretary of the Canadian Association for the Prevention of Tuberculosis in succession to Dr. George D. Porter.

---

Dr. J. J. Fraser has been appointed District Officer of Health for District No. 2, Provincial Board of Health, Ontario.

---

Dr. Gordon Bates, General Secretary, Canadian National Council for Combating Venereal Diseases, is in England at present.

---

Unofficial figures so far available seem to show that the infant mortality rate of the City of Toronto for the first six months of 1921 is the lowest yet recorded.

---

Dr. R. D. Defries, General Secretary of the Canadian Public Health Association has resigned and has been succeeded by Dr. R. R. McClenahan, Director of the Division of Venereal Diseases, Provincial Board of Health, Ontario.

Dr. Fred. Adams, Windsor, Treasurer of the Canadian Public Health Association, has resigned and Dr. A. Grant Fleming, Deputy Medical Officer of Health, Toronto, has been elected Treasurer.

---

Dr. T. M. Sieniewicz, of Halifax, Nova Scotia, for three and a half years associated with Dr. A. F. Miller in the Tuberculosis Sanatorium at Kentville, has been appointed to the position of Tuberculosis Examiner in the Massachusetts-Halifax Health Commission. Dr. Sieniewicz succeeds Dr. D. A. Craig, the first appointee in this position. All of his time will be given to the public health work of the Commission and to consultation work with physicians of Halifax and Dartmouth.

---

An interesting Scrap Book has been prepared by the Child Hygiene Section of the Canadian Public Health Association, 206 Bloor St. W., Toronto, containing samples of the literature used in the Toronto Milk Campaign—including photographs, budget, posters, etc. This will be loaned to any organization interested in a similar campaign, and will be sent, upon request, express collect.

---

The American Social Hygiene Association announces that its offices have been changed from 105 West 40th Street to 15th floor, 370 Seventh Avenue, New York City.

---

In Saint John, N.B., at the Winter Port a piece of combined Public Health and Canadianization is being carried on. A Red Cross Nurse and many willing helpers minister to the mothers and children as they come off the ships. All are made comfortable between the time of the arrival of the steamer and the start by rail for the final destination. The help does not rest there either, for each mother is given a card for subsequent use if the child should become ill during the first few months in the new home. This card bears a Red Cross, the one sign so many of the women from stricken Europe know and trust. On one side of the card is printed instruction for the mother as to how and where help can be secured by presenting this card to: The City or Town Hall (Health Officer); The Hospital; The Public Health Nurse; The Victorian Order Nurse; The Red Cross Nurse. If further information is wanted the holder of the card is instructed to write to the Health Officer of the Province where she is domiciled or to the Canadian Red Cross Society. On the reverse side of the card is the address necessary

for these letters; one town in each of the nine Provinces of Canada being given: British Columbia, 623 Pender St. W., Vancouver; Alberta, O'Sullivan Block, Calgary; Saskatchewan, 1821 Scarth St., Regina; Manitoba, 315 Portage Avenue, Winnipeg; Ontario, 410 Sherburne St., Toronto; Quebec, 45 Belmont Park, Montreal; New Brunswick, 160 Prince William St., St. John; Nova Scotia, 63 Metropole Building, Halifax; Prince Edward Island, Charlottetown. The only card so far in use is in English. Eventually it will be printed in three languages. It will become then a real help to the distracted mother who has not learned very much English. When she has been made happy by seeing her child restored to health it will be found that an additional incentive has been given to induce her to learn English.

---

## Notes on Current Literature

From the Department of Information on Public Health, Canadian  
Red Cross Society

### INTERESTING ARTICLES IN RECENT PERIODICALS

#### *Vitamines and Public Health.*

Dr. Drummond, of the Department of Physiological Chemistry, University of London, England, warns against the commercial exploitation of vitamins. If people would recognize the real situation and eat more fresh vegetables, fruits, eggs and milk, they need not, under ordinary circumstances, purchase expensive, and possibly inefficient, proprietary articles, nor worry about vitamins. Natural sources for these products abound on every hand. ("The American Journal of Public Health," July, 1921.)

#### *Which Way Are We Going in Nursing?*

The education of the nurses of the present and the standards and numbers of nurses of the future are matters of practical concern to all classes in the community. This article discusses the value of short courses in nursing. The author believes that the group reached by these courses should be called "Attendants" and not "Nurses," and that the duties and responsibilities undertaken by these "attendants" should be restricted. ("The Survey," June 18th, 1921.)

#### *Ontario Municipal Health Efforts.*

With comprehension and thoroughness Dr. Robert Wodehouse shows the present health expenditures of municipalities in Ontario and compares these figures with the amounts that should be spent if it were generally realized that public health is a purchasable commodity; and that, within natural limits, every community can determine its own death rate. This article will make illuminating, and in some cases, salutary reading for every one interested in local government. ("Public Health Journal," May, 1921-p. 193.)

#### *The Public Aspect of Tuberculosis.*

Dr. Royer shows how former methods of combating tuberculosis have not yielded the desired results. He outlines methods for preventing the spread of the disease and indicates the roles played in this campaign by proper home care, health centres, clinics and sanatoria. ("The Public Health Journal," May, 1921, p. 213.)



*Community Aspects of the Tuberculosis Problem.*

The Publicity Director of the National Tuberculosis Association reviews the various agencies for the discovery of cases of tuberculosis. ("Public Health Nurse," June, 1921, p. 274.)

*Daylight in the Schoolroom.*

A report on the conservation of vision and the lighting of schoolrooms, emphasizing the most complete utilization of daylight by the correct construction and location of windows and the use of shades and reflectors. ("Journal of American Association, June 18, 1921, p. 1785.)

*The Minister of Health and Housing.*

Extracts from the speeches made by Sir Alfred Mond in the British House of Commons. ("Housing," June, 1921, p. 281.)

---

## Notes on the Venereal Disease Problem

### Public Health Activity and Private Practice in Venereal Disease Control

BY JOHN H. STOKES, M.D., *The Journal of the American Medical Association*, vol. 76, No. 18, April 30, 1921

A GREAT disinterested public spirit is seeking, through public health officers, to wipe out a group of controllable infections—the venereal diseases. A large body of equally well intentioned private agents, in the form of the medical profession, derives its livelihood, at least in part, from the same source. An antagonism between the public activity and private interest, which might so easily develop in such a situation, would be wholly unnecessary and deplorable. The United States Public Health Service and the associated venereal divisions of various state boards of health realized the implications of their entry into this field of medical practice and submitted a declaration of principles and intentions, the summary of which is:

They endorse and urge the continuance of a campaign of public education.

They urge the evaluation of the propaganda thus far carried on in as exact social, psychologic, and medical terms as possible.

They prefer education and persuasion to legal process in regard to law enforcement and regulation.

They ask the intelligent and sympathetic co-operation of the medical profession. This co-operation can best be obtained by the rapid extension of specialized teaching facilities for the medical students; by making available to physicians the latest developments concerning the venereal diseases; and by the development of state diagnostic facilities for the use of practicing physicians.

Having accepted its share of responsibility for developing an appropriate equipment, the Public Health Service and its affiliated state organizations urge physicians at large to move for a general raising of the standard of treatment of the venereal diseases. In the words of the resolution:

This implies that a physician who is unfamiliar with or unprepared to employ modern methods in the management of these diseases should not accept such cases for treatment, but should

refer them to some private or public physician who is properly equipped.

If the medical profession can treat the venereal disease patients adequately, the United States Public Health Service and the state boards of health pledge themselves not to invade the field of private practice in this phase of medical work.

The representatives of the public health service concede and define the value and the basic requirements of training for this work, and recognize as one of the essential requirements the provision of inspiration and incentive to individual development and reward for initiative.

The public health authorities further frankly concede that under existing conditions the Public Health Service cannot hope to offer a career with adequate returns to those who devote themselves exclusively to the work of venereal disease control, and recognize with equal justice the right of the highly trained man to seek in private practice the material return for special training and proficiency which public parsimony now denies him.

So sincere and genuine an effort at co-operation as this declaration represents deserves the warmest response from the medical profession. It should be the privilege of the medical profession to bring its influence to bear to dignify public service in medicine. It is also the duty of the medical profession, and to its own interest, to co-operate in the development of educational and diagnostic facilities and to raise the standard of the treatment accorded the patient with a venereal disease.

The extinction of private practice in venereal disease is not a consummation to be wished, but it will be one to be deserved if the medical profession cannot measure up, by a process of internal organization and adjustment, to the standards of the most altruistic and energetic public agent in the field.

The United States Public Health Service and the state venereal disease bureaus, backed by one of the most powerful public sentiments now concentrated on any health problem, have expressed a desire for co-operation with the medical profession and indicated a way for its achievement.

### **Interim Report of the Neurosyphilis Investigation of the Massachusetts Commission on Mental Diseases**

BY OSCAR RAEDER, M.D., *Bulletin of the Massachusetts Department of  
Mental Diseases*, vol. IV., No. 2, April, 1920.

In order to make early diagnosis of neurosyphilis, the psychopathic department applied the Wassermann test to the spouses, children, and

parents of syphilitics. After diagnosing the cases as positive, neuro-syphilis treatment was instituted. As a systematic basis, a time span of three months during which intensive treatment with arsphenamine and mercury were given, was chosen. In this time it could be determined whether a case will react favourably or otherwise. The author considers the cases as cured when the Wassermanns become negative in the blood and fluid, globulin and albumin practically normal, cells reduced to within 5 and a slight gold reaction in three or more tubes, with partial reduction in the syphilitic zone, provided, of course, the patients have mentally recovered and show no more organic defects than an Argyll Robertson pupil or a pathological knee jerk, for example.

#### RESULTS OF TREATMENT

In a comparative study of the laboratory changes in a limited number of clinically improved cases (28) in which the investigators were able to get complete before-and-after tests of sera and spinal fluids, they found the following:

##### IMPROVED CASES

A. Improved as to Wassermann reaction on blood and fluid and gold sol.....	9 or 32%
B. Improved as to Wassermann reaction on blood only, additional.....	5 or 18%
A. and B. Improved as to Wassermann reaction on blood...	14 or 50%
C. Improved as to gold sol only.....	3 or 11%
D. Improved as to Wassermann reaction on cerebro-spinal fluid and gold sol.....	1 or 4%
E. Stationary as to Wasserman reaction on serum and gold sol.....	9 or 32%
F. Worse as to Wassermann reaction on serum and fluid and gold sol.....	1 or 4%

Under A are represented nine cases—seven of these had a positive reaction on serum and spinal fluid and a more or less typical parietic curve; the other two had negative Wassermann reactions on the serum but were otherwise the same. All nine cases showed great improvement after intensive treatment extending over a period of from three months to four years.

Under B there are five additional cases in which the blood serum became negative, the spinal fluid remaining unchanged. Thus including the cases under A and B there were 14 improved cases or 50 per cent. in which the Wassermann reaction of the serum became negative.

In a study of 27 cases, with complete data taken before treatment

and again shortly before death, it is shown that 56 per cent. of the cases were practically unaffected by the treatment.

One case showed evidence of improvement as to Wassermann reaction on fluid and the gold sol, but the Wassermann reaction on the serum remained positive.

Two cases showed improvement in the Wassermann reaction on both serum and fluid; in one case two doubtfuls changed to two negatives; and others, both positive at first, changed to both negative with a slight improvement on the serum only.

Distinct improvement in the gold sol curve without reaction in the Wassermann test occurred in four cases or 15 per cent. One of these cases showed a practically negative gold sol with a terminal marked tabetic involvement during the last four months.

Fifteen cases or 56 per cent. showed no changes in the serology or fluid findings from the time of the first examination until death.

One case in which the Wassermann reaction was first—on the blood all the other reactions positive for paresis grew worse until after treatment and at remission the blood serum also became straight positive before death.

According to this analysis of fatal cases in which minute care was taken to observe all the laboratory and clinical changes, including also, besides the Wassermann tests and gold sol reaction, the cell count, albumin and globulin estimation, it was found that over 56 per cent. of the cases in which the diagnosis of neurosyphilis is crystal clear both from a clinical and laboratory standpoint may be expected to end unfavourably. With exceptions, little or nothing can help these fully developed "committed type" cases.

#### CONCLUSIONS

In 428 cases of neurosyphilis treated during a period of four years 129 cases, or practically 30 per cent., showed definite benefit; 125 cases are under treatment at hospitals, of which a certain percentage can be expected to show similar improvement. Among 93 cases that have drifted away, another definite proportion, probably a larger number comparatively, can be presumed to have benefited from treatment.

There are two definite groups of cases of neurosyphilis: the early or the psychopathic hospital group and the advanced committable or custodial group. The early case is not met in insane hospitals except in such as conduct out-patients departments. These cases also frequently first come to professional attention through the field of general or "internal" medicine.

The relatives of syphilitics and neurosyphilitics form a most im-

portant group in which not only syphilis but the earliest degrees of neurosyphilis in the presymptomatic stages are brought to light by lumbar puncture and sero-analysis. It is in these types that by far the most important benefit can be expected.

Early diagnosis, preferably before pronounced mental symptoms have appeared, gives the greatest promise of successful results. For it seems that for some reason the curative agent is less able or practically unable to influence certain bacterial toxins after they have had time to combine with the neuromusculature. Another instance of this phenomenon is shown in the case of the tetanus toxin.

Apparently advanced neurosyphilis is not a contra-indication to treatment—there is a distinct, though not large, percentage of such cases that amply gratify the efforts of intensive attack.

In early and typical cases the most exhaustive serological and spinal fluid examinations are the best guides to the diagnosis. The provocative method should not be overlooked.

Intensive and prolonged treatment to the point of saturation with the combined force of the three specifics—arsenic, mercury and potassium iodide. Arsphenamine has been preferred to neoarsphenamine as more lasting in its effects.

The *therapia praesens* of neurosyphilis is but a transition state in rational syphilotherapy. Medical science had discovered several good clues which must be followed up, and others ferreted out and run down, before the solution of the problem is complete. Indeed, the successful treatment of paresis and tabes as the crippling craniopathos, etc., may ultimately be realized in the field of preventive medicine. With chemotherapy, however, Ehrlich had doubtless found the most vulnerable approach to the treponemiotic diseases, but further research is necessary and other combinations must be found before the life of this anthropophagous pest is successfully snuffed out.

---

## Report of the Director of Medical School Inspection on the Teaching of Hygiene in Public Schools of Toronto.

THE question of the place to be allotted the teaching of good health, Personal Hygiene, or whatever it may be called in the present and future curriculum of the Public Schools of Toronto, is a vital one. That it has not in the past been sufficiently emphasized, especially in the Junior grades, no one will gainsay, and the responsibility for this is of no real moment, but that it must be permitted to assume a position commensurate with its importance in the immediate future, is a responsibility which I feel this Department must of necessity assume.

That the whole subject should be changed from one undertaught by a teaching staff, handicapped by a lack of sufficient knowledge of the subject, to one of vital importance to appreciative staff and students, "Our plea is for a broader conception of the functions and scope of educational hygiene. The usual attention given to heating, lighting, ventilation and gross physical defectiveness is but the merest beginning. The school, instead of causing sickness and deformity, must be made to preserve the child from all kinds of morbidity, repair his existent deformities, combat his unfavourable heredity and the bad conditions of his environment; in a word, fortify his constitution and render him physically and mentally fit for the struggles of life. The greatest problem of conservation relates not to forests and mines, but to national vitality, and to conserve the latter we must begin by conserving the child." "No other agency compares with the school in the opportunities offered for contributing to the health of the succeeding generation. We cannot legislate desirable habits of living into men and women, but we may be able to mold, after our ideals, the hygienic habits of the child."

With this end in view let us review the subject of Health Teaching in Toronto Schools.

The present method of handling this subject varies in every school. Many principals and teachers appreciating its importance have attempted to find room for it in an already overcrowded curriculum; others have appreciated, but procrastinated the evil day. While others have felt the need of a guiding hand and are only waiting for such.

The subject as taught in the first grades, Junior and Senior First, is vague, as is the time allotted to it, varying with the individual principal and teacher.



Similar conditions exist in the Second grades, although the subjects mentioned in the Manual might be made interesting to a child of ten, if the teacher had the time and a more comprehensive grasp of her subject.

An effort is made in the Third and Fourth grades in practically all centres, but the subject of ventilation and heating, mixed up with the number of bones in the human anatomy, with an occasional dissertation on the dire evils following the use of alcohol and tobacco, make a hodge-podge that it would be impossible for any child to assimilate.

The solution seems to be this:

First we must get firmly fixed in the mind of all educational authorities that this subject is of paramount importance, and that it should have a very definite place in the daily academic programme. Secondly, we must of necessity impress on the Provincial Department of Education the need for a better instruction in this subject at the Educational centres (Normal and Model schools), and third, that we endeavour to so place our subject before the children preferably through the media of the teacher herself, that it can be of real value, and if we have accomplished the first two, the last is relatively easy.

In the Junior Grade, any of the day's many happenings can be used to advantage. The child who cannot see the blackboard, the one with dirty hands, the finding of apple or candy in the desk, the late arrival of some kiddie, changes in the weather, needing suitable clothing, return of children from quarantine or the exclusion for illness or exposure to infection. All these and many more could be made the basis for health talks to the Junior pupils.

While any boy of 13 should enthuse as to the relative merits of baseball or lacrosse, from the standpoint of physical development, and at least show some interest in a request to figure out, a comparative table of the air space in the Black Hole of Calcutta and his own classroom, and the amount of air available for the occupant of each, using this historic incident to drive home your lesson of the value of fresh air, etc. These are only a few suggested possibilities, our hope being as outlined earlier, to emphasize the importance of the subject and to present it so that it may be readily taught and easily absorbed.

---

## Editorial

---

### Child Welfare Work and Canada

ON reading the lecture delivered by Sir Arthur Newsholme on "National Changes in Health and Longevity" one is reminded and forced to think of what is really being accomplished in the way of building up a healthier race in Canada. In this particular connection we think of the results of the active work being done amongst the children of our country; as to whether the lives which are yearly being saved and the sickness which is being lessened is tending to provide a generation for our country which is going to be more robust than the present one.

There has always been the suggestion that the increased survival means an inferior population, but when we consider what actually happens it is evident that this is not so and that we are not preserving weaklings; but rather are preserving our robust children from being made weaklings by the infectious diseases and other factors, such as improper foods, which in the past have damaged irreparably our children in their early life, and which are now at least to some extent being controlled.

So in the Child Welfare work which is being carried on, while we may feel encouraged by our lessened mortality rates, surely the real encouragement we should feel is in the fact that each year children are advancing into maturity undamaged; protected by the simple rules of health, proper food, fresh air, and sufficient sleep, which are being cried from the housetops so that all mothers may know the foundation upon which to build the future health of their children, and realizing this, let us continue our efforts to provide Canada with a healthy, vigorous and happy people.

---

## Book Reviews

*The Sex Factor in Human Life.* A study outline for college men. By T. W. Galloway, Ph.D., The American Social Hygiene Association, Inc. New York.

This book, as the introduction states, is written primarily for groups of college men joined together for voluntary discussion of those points at which sex bears most directly upon the happiness and sanity of every life. It is hoped that it may have in addition a value to any thoughtful men or women who are ready to fit themselves to accept leadership for the sake of the younger boys.

Chapter titles include appetites and their place in life, nature of sex and some of its effects on human development, some popular misconceptions about sex, sex and inheritance, marriage, democracy and the home, sex and religion, reference bibliography.

The book is carefully written. The author speaks with authority and in discussing many phases of the social hygiene question brings forward for consideration and decision various matters over which a large percentage of his readers have probably puzzled in vain. The book in the main is in question and answer form. Its perusal will repay not only the type of student for which it is primarily intended but any one interested in the fields of social hygiene, sex hygiene or venereal disease control.

G. A. B.

*Home Nursing.* By Abbie Z. Marsh, Portland, Oregon. Philadelphia, Blakiston's Son & Co. Cloth, pp. 268. \$1.25.

In preparing this book the author seems to have endeavoured to combine a text-book for teachers of Home Nursing and a guide book for an inexperienced mother, who must deal with sickness in the home.

The book is in three parts, devoted respectively to:

- (1) General nursing care.
- (2) The symptoms and treatment of disease.
- (3) Infant care and feeding.

The simpler portions of Part I, on General Nursing Care, might with benefit be taught to girls in the proposed fifteen lessons. If every young woman could be given a thorough understanding and appreciation of the material contained in the first seven chapters the world should be a healthier and more comfortable place to live.

The second and third parts of the book are too complicated for the lay reader, and so technically inaccurate as to be unserviceable to the

teacher of home nursing. There may be a question as to the wisdom of including so much medical material but the author has endeavoured to urge her readers to seek skilled advice in times of illness and accident.

Her desire is evidently to serve the mother who cannot easily reach her doctor, as well as to urge upon all the importance of doing so by emphasizing the seriousness of neglect.

As a text-book this production has very distinct limitations, but, if used with intelligence and discrimination, may be of value for reference.

E. RUSSELL.

---

